A CASE OF ENORMOUS PROSTATIC CALCULUS.[1]

SECONDARY TO TRAUMATIC STRICTURE OF THE PERINEAL URETHRA; SUPPURATION ABOUT THE STONE; SECONDARY ABSCESS IN THE PELVIS; EXTENSIVE URETHRORECTAL FISTULA FOLLOWING PERINEAL SECTION FOR THE CALCULUS; PERINEAL RECTOPLASTY FOR THE CLOSURE OF THE FISTULA; RECOVERY.

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M. B., farmer, aged thirty-four years, referred to me by Dr. V. H. Ruble, of Pierre, South Dakota, first consulted me on the 15th of June, 1900. His history was as follows:

He had been perfectly well until four years previously, when his horse fell upon him, producing various injuries, the most severe of which was apparently a blow upon the perineum. This was followed by hæmaturia for one week. There was no urinary obstruction nor retention, and he was apparently as well as before the accident within ten days after its occurrence. He remained well for six months, at the end of which time he noticed difficulty in micturition. The stream diminished in size with frequent desire to micturate. This condition increased steadily. One year before consulting me he passed several small calculi. He has passed calculi at intervals ever since. At the time he first consulted me the stream of urine was very small; there was considerable difficulty in evacuating the bladder, and he was having occasional chills, especially if the urethra was interfered with by instruments.

On examination I found a hard, callous stricture in the bulbomembranous region, with secondary cystitis. This was permeable to No. 20 Charriere. Perineal section was advised and consented to. The operation was, however, deferred for a few days at the patient's request, preparatory treatment being meanwhile instituted. The patient chanced to come in contact with some physician, by whom he was dissuaded from submitting to the operation,

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being told that he could be cured by medicine. I afterwards was informed by Dr. Ruble that his patient had returned home after an alleged cure.

November 28, 1901, the patient returned to me for examination. I found at this time a large tumor in the prostate, distinctly jutting into the rectum. This was of stony hardness and absolutely immobile. I made a diagnosis of secondary calculus embedded in the prostate. The patient could still micturate, and the urethra was, as before, permeable to No. 20 French. The stone could not be felt by urethral exploration. Operation was again proposed, it being my intention to perform a suprapubic section as well as a perineal urethrotomy. The patient again consented, but delayed submitting himself to the knife on one pretext or another for some days, during which he fell under the spell of several gentlemen who, like his previous surreptitious consultants, informed him that the diagnosis of his case was wrong, and that he could be cured by remedies. The most I could do with him before he escaped from my supervision was to secure a skiagraph of the stone, which is presented herewith (Fig. 1). Having been again cured by medicines, the patient returned to his home in Dakota, and I did not hear from him again until the 12th of October, when he was brought into my office by Dr. Ruble, who gave the following interesting history:

In May last, suppuration occurred about the calculus and a secondary abscess formed in the pelvis, I infer from infection of the pelvic lymphatic glands. This was evacuated at the external inguinal ring, it having pointed through the inguinal canal on the right side. More than a pint of pus was evacuated and the abscess promptly healed. Dr. Ruble considered it expedient to remove the calculus from the prostate by way of the perineum. For a time afterwards the patient did apparently well, and for some weeks was passing his urine *per vias naturales*.

Some time after the perineal section, it was noticed that a pouch containing fluid had formed in the perineum. Dr. Ruble opened this pouch, evacuating a quantity of pus and decomposed urine. The cavity not only did not heal, but thereafter the fæces and urine were discharged through the perineal opening and also appeared at the meatus. Urination subsequently took place entirely by way of the perineum.

When I examined the patient on the 12th of October, I found

FIG. 1.—Skiagraph of prostatic calculus.

a large pouch in the perineum communicating with the perineal wound; this was lined by pseudomembrane, and at its posterior extremity connected with the urethra. The perineal portion of the urethra was the site of a firm, callous stricture which extended from the middle of the perineum back to the bulbomembranous junction. It had been impossible to pass the sound into the bladder since the last perineal operation. I did not, however, attempt to pass an instrument at this time. Fæces and urine were discharging freely through the perineal wound and fæces appearing at the meatus. On rectal exploration, I found a fistula in the anterior wall of the rectum, approximately two inches in length and half an inch in width. On inquiry, I found that an attempt at a plastic operation from the rectal aspect of the fistula had been attempted. This is important only as explaining to a certain extent the loss of tissue, the greater portion of which, however, had been lost by sloughing or ulceration after the perineal operation for the calculus.

I proposed operation for the relief of the stricture and repair of the rectum.

Operation.—The operation was performed the following morning. I made the ordinary Y incision in the perineum, so extensively used for prostatectomy. The urethra and rectum were separated to a point about one inch above the upper angle of the fistula. This point corresponded very nearly with the prostatovesical junction. The dissection was accomplished with considerable difficulty, the urethra and bowel being fused together firmly by cicatricial tissue. When the separation was effected, three good sized pockets were found about the neck of the bladder, representing the pouch formed by the pressure of the calculus and the results of the destruction of the prostate and its environs by suppuration. Great difficulty was experienced in repairing the fistula in the rectum. The operation was very tedious, but I finally succeeded in closing the rent in the bowel with three superimposed lines of chromicized catgut. The two lines of suture first inserted were made continuous; the final line of suture was the ordinary Lembert. Especial effort was made in repairing the opening of the bowel to get as large a surface of denuded tissue as possible. When the suturing was completed, a considerable buttress of freshened tissue covered the opening in the bowel. A fortunate circumstance of the suturing was the fact that the

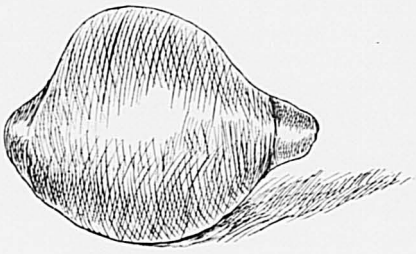
fistula was drawn to the right of the median line, thus lessening the chances of a re-establishment of continuity between the urethra and bowel. In future operations of the kind, I shall make the attempt to displace the line of suture laterally, as a systematic procedure. The callous stricture in the perineum was cut away, leaving merely a strip of mucous membrane on the roof of the canal. When this portion of the operation was completed, the floor of the urethra was entirely gone from the middle of the perineum to the prostatovesical junction, the internal sphincter vesicæ being alone intact. No attempt was made to close the urethra by a plastic procedure. The sphincter ani having been thoroughly dilated at the beginning of the operation, a large tube, wound with iodoform gauze, was inserted into the bowel to protect the repaired area from disturbance by gas and fæces. The operation was completed by packing thoroughly with iodoform gauze the extensive cavity which now occupied the perineal body as far as the orifice of the bladder. A catheter was retained for twenty-four hours, after which time no attempt was made to divert the urine from the track of the wound. It was found that, subsequent to the removal of the catheter, the packing in the perineum was so effective that the urine in great part began to flow through the normal channel. The first strips of gauze which were introduced into the wound were so closely applied to the line of union of the fistula as to protect it completely from such portion of the urine as might escape *via* the perineum.

The patient's present condition is apparently extremely satisfactory. The perineal wound is almost completely closed, and the urine escapes almost entirely by the normal channel. The rectal fistula is almost entirely closed. No fæces have escaped at any time into the perineal wound. There is, however, an occasional escape of gas. This escapes slowly and in very small quantities, indicating that the opening in the bowel which still remains is very small. No urine escapes by the rectum, as was the case prior to operation. Rectal examination with the finger fails to detect any solution of continuity in the bowel; whereas, prior to the operation, the finger readily passed from the interior of the bowel through the fistula, and as far as the length of the finger would permit, into the perineum anteriorly and into the various pockets about the neck of the bladder hitherto described posteriorly. Proctoscopic exploration fails to find the fistulous open-

ing. It will thus be seen that primary union of the fistula was almost complete. I have little doubt that the result will be entirely satisfactory. Complete closure is probable. Should a small opening persist between the bowel and urethra, it will quite likely close under cauterization from within the bowel, as has occurred in several cases of a similar character coming under my observation.

The calculus (Fig. 2) removed in this case weighs 720 grains. I have not made a section of it, so I am not prepared to state what

FIG. 2.



Prostatic calculus.

is the composition of its nucleus. The rationale of its formation is, I think, as follows: As a consequence of the traumatic stricture of the urethra, a certain quantity of residual urine continually remained in the canal. Decomposition followed, with the formation of secondary calculi. The obstruction to the outflow of urine meanwhile caused dilatation of the prostatic ducts. As the outflowing stream of urine during micturition came in contact with the obstruction afforded by the traumatic stricture, these small secondary calculi were forced against the latter and returned in the periphery of the stream. One of these calculi becoming lodged in a dilated prostatic duct formed a nucleus around which laminæ of phosphatic deposit occurred. This produced a rapid growth of the calculus, which growth continued until it attained the size shown in the specimen. It is, of course, possible that the stone formed in the prostatic utricle.